

Earth, Wind, Fire, and Water

Historic Preservation Disaster Planning in Miami-Dade County, Florida

Miami-Dade County is both richly blessed and periodically cursed by nature. Situated along the southeastern tip of the peninsula of Florida and basking in a balmy subtropical climate, the metropolitan Miami area is famous to tourists worldwide as a favorite vacation place for its dry mild winters, wet warm summers, and palm-studded beaches lapped by the clear, aquamarine waters of the Gulf Stream flowing northward along its shoreline. However, because of that same geography, weather, and water, Miami-Dade County is also the locus of tornadoes, tropical and thunder storms, and hurricanes that, as Shakespeare writes, “rage, blow and drench” not only our local steeples, but all of our historic sites, buildings, and cultural landscapes as well.

posed of loose soil, earthquakes and mudslides are two potential disaster types that (fortunately) are not a concern in Miami-Dade County.

Prior to a half-century of artificial drainage efforts that began in the region nearly 100 years ago, the vast, but shallow, freshwater Everglades—with its broad expanse broken only sporadically by small islands—once stretched across nearly three-quarters of the county to land just west of the coastal ridge. Even in its present diminished state, in times of slight rainfall or drought, the withered, open sawgrass marsh of the Everglades and the remaining open fields and pinelands of the county serve as kindling for brush fires caused by lightning, arson, or careless human action that often scorch thousands of acres each year. Meanwhile, in times of heavy or sustained rainfall, flooding is often a substantial

*Blow, winds, and crack your cheeks! Rage! Blow!
You cataracts and hurricanoes, spout
Till you have drench'd our steeples, drown'd the cocks!
You sulphurous & thought-executing fires,
Vaunt couriers to oak-cleaving thunderbolts,
Singe my white head! And then, all-shaking thunder,
Strike flat the thick rotundity o' the world!
Crack nature's moulds, all germens spill at once
That make ingrateful man!*

King Lear
William Shakespeare

The earthly foundation upon which the people of Miami-Dade County make their home is a nearly flat, geologically stable, low-lying limestone deposit with a thin overburden of sandy, organic soil. Except on the Atlantic coastal ridge and a few other scattered, slightly hilly natural formations that ascend to 15 to 25 feet above sea level, much of our landmass ranges only between 4 to 8 feet in elevation. Not being near a fault or rift and without any significant elevation com-

problem for many historic neighborhoods or sites because these areas were built over former wetlands or bay bottomlands. The wave action of marine storms creates severe erosion and violent storm surges that pose additional threats to thousands of historical and archeological sites found along the coast.

As a result of these natural conditions, the archeological and historical sites of modern Miami-Dade County are under continual threat

from the ravages of the ancient “elements” of earth, wind, fire, and water. In order to minimize the potential adverse effects from any one of these natural threats, the Office of Community and Economic Development’s Historic Preservation Division has devised a course of action for such emergencies.

The initial preparation of the Historic Preservation Division’s disaster response plan came about largely as a result of several distinct events. In August 1992, much of the county—including numerous archeological and historical sites—was devastated by Hurricane Andrew, which is considered to be the most expensive natural disaster in American history. Some of these sites were damaged not only directly by the storm itself, but also unintentionally by the cleanup efforts that followed. At times during the debris cleanup efforts, salvageable original building materials from a number of historic properties were thrown away by well-meaning but uninformed work crews. Shallow, fragile archeological sites were also adversely affected by vehicles and heavy machinery involved in debris removal or by workers assigned to remove damaged or non-native vegetation, particularly by pulling out the stumps of trees situated over the buried sites.

Over the last several years, the widespread windstorm, flooding, and fire damage that has affected Florida and a number of other states has reinforced the need to have a plan prepared that comprehensively addresses disaster management for historic properties. Particularly in disaster-prone south Florida, Miami-Dade County’s Historic Preservation Division recognizes that disaster-related damage is inevitable and, by planning ahead for such events, the county and its citizens can minimize and ease the potential damages to their cultural resources.

More recently, our agency was provided an additional incentive to plan for disaster by the attention devoted to preparing for any turmoil that was expected to be caused by the Y2K computer-related programming problems. As everyone knows, this did not come to pass, but it justifiably compelled each county department—including the Historic Preservation Division—to consider what could be done to minimize harm to agency-related projects while continuing to provide service and assistance in the event of electrical and communication failures and public disorder.

Our office has learned that there are several preparatory actions that any public agency or community organization that manages cultural resources needs to do to help minimize potential harm as a result of a disaster. Many agencies do not prepare disaster response plans for a number of reasons, including having a staff that is already underfunded and overwhelmed by its daily routine. Some simply believe that “it can’t happen here.” Unfortunately, a disaster can and will eventually strike a beloved local landmark; being prepared is the best means of mitigating your loss.

To be prepared, a local historic preservation agency must first determine how and why it is protecting local resources. This means that the agency’s staff must be knowledgeable about the scope of its legal and regulatory authority. In other words, “know thy ordinance and statutes.” When a disaster befalls your locale, it is important to know what you have the authority to do and why. This will aid you immensely in coordinating the recovery response. During a time of crisis, determining who can do what and why should not be muddled, because time is usually of the essence. If there is any doubt, the historic preservation agency should assume the role of protecting the damaged resource. No one will fault your office for helping to save a site in distress, but, if you fail to act, an inordinate and unwanted amount of attention will be heaped upon your agency.

Second, the agency must determine what resources it is protecting and create a master site database. This requires the agency to conduct a comprehensive survey to determine all archeological and historical sites within its jurisdiction. Miami-Dade County initially conducted such a survey from 1978-1981 and recorded over 6,000 historical and archeological sites. Over the last 20 years, the survey data has been updated through additional site visits, published materials, and materials gathered from property owners. Nonetheless, with the passage of two decades, thousands of properties exist that were either missed during the original survey, were inadequately or inaccurately reviewed previously, or that have become eligible for designation since that time and need to be recorded. The county is now planning for its second countywide survey that will evaluate the current status of both previously unrecorded sites and an update on those already documented.

However, the data gathered from a comprehensive resource survey will not be of ready use to an agency during a disaster if it is disorganized. The database should include both the site's type (e.g., archeological, historical, monumental) and, more importantly, its location. The location information should be as specific as possible (e.g., address, folio number, UTM coordinates) to provide ready reference during a time of crisis evaluation. Additionally, all site files should include relevant descriptive details of a site's period of association, setting, features, architecture and the like, and a detailed photographic record of its present condition. In surveying urban areas, the fire insurance plat books once regularly produced and updated by companies such as Sanborn and Hopkins serve as invaluable resources in providing information on historical sites, including such details as building footprints, building materials, and certain landscape features. As often as possible, historic preservation agencies should regularly supplement the information gathered for each site through site visits and correspondence with property owners and other agencies (e.g., building and zoning). All of this will assist your agency in having the necessary level of information about a site should a disaster strike.

Third, each historic preservation agency should develop response guidelines for how to handle both small-scale and large-scale catastrophes. In the event harm befalls a site, the local agency should be prepared to contact the property owners of all affected sites (who will likely be in a degree of shock) to assist in providing damage assessment, advice, and coordination with other agencies, officials, service providers, and interested not-for-profit organizations. Over the last several years in Miami-Dade County, community and economic development funds have been regularly set aside as an emergency relief fund for owners of damaged historic sites that meet certain federal guidelines based on income or the removal of blight through historic preservation rehabilitation.

In order to supplement tight budgets, each historic preservation agency should also actively search for and maintain current contact lists for those sources of grant funds that might be called upon to assist disaster-damaged sites, such as grant programs from the federal Department of Housing and Urban Development (HUD), Federal Emergency Management Agency

(FEMA), the state historic preservation office (SHPO), and private foundations. New federal laws, such as the Transportation Enhancement Act for the 21st Century (TEA-21), should also be considered as a likely funding source for those historic preservation projects that can demonstrate certain relationships to the surface transportation system. Though not threatened by a natural disaster, a significant archeological site located in downtown Miami that was to be destroyed by commercial development was awarded a one million dollar transportation enhancement grant by the local metropolitan planning organization for use by Miami-Dade to help ensure the site's purchase, preservation, and enjoyment for the public.

Based on the experience of Miami-Dade County, the measures outlined above will not prevent a disaster from striking, but they will help the historic preservation agency's response to such a crisis. In the end, regardless of whether nature rages from earth, wind, fire, or water or through human action, the local historic preservation agency can be there to make grateful "ingrateful man."

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